REMARKS

Applicant respectfully requests the reconsideration of the application and the consideration of the following remarks. New claims 50-53 are currently added. Thus, claims 7-10, 13-14, 17-18, 20-24 and 31-53 are currently pending in the application.

Claims 7-10, 13-14, 17-18 and 31-34 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Specifically, the Office Action asserted that "automatically stripping is not taught in the specification." Applicant respectfully disagrees.

Page 6, lines 15-19, of the specification describes:

> "BIOS memory 110 is displayed which displays one embodiment of the invention including an 8x16 font 130, a 9x16 font 135, an emulation routine 150, and an unused space 155. Emulation routine 150 utilizes the stored 8x16 font 130 and 9x16 font 135 to emulate an 8x14 font 140 and a 9x14 font 145."

It shows that in at least one embodiment an emulation routine in the BIOS memory emulates the 8x14 font using the 8x16 font stored in the BIOS memory. Space is saved in the BIOS when the emulation routine replaces the two fourteen line fonts (see, e.g., page 6, lines 21-22, of the specification).

Similarly, page 7, lines 5-7, of the specification describes:

> "the BIOS emulation routine utilizes a sixteen line character from 8x16 font 130 to display 240 a fourteen line character, thereby emulating 8x14 font 140."

Thus, it is clear that the emulation is carried out automatically by the BIOS emulation routine.

Further, on page 7, lines 19-21, of the specification describes:

> "This emulation is done by utilizing all but the very first or top line and the very last or bottom line of each character of the sixteen line font when the fourteen line font is requested."

Thus, it is very clear that at least one embodiment of the present invention uses a BIOS emulation routine to automatically strip off the very first or top line and the very last or bottom line of each character of the sixteen line font to emulate the fourteen line font. Further, it is clear that in this embodiment, the top line and the bottom line are stripped off unconditionally. Thus, at least one embodiment of the present invention uses a very simple method to emulate one font using another.

Further, on page 8, lines 25-27, of the specification describes:

> "Alternatively, in one case, the 8x14 font 160 and 9x14 font 165 may be generated directly from the 8x16 font 130 and 9x16 font 135 respectively when the system is initialized."

Thus, in one alternative embodiment, the fourteen line fonts are directly and automatically generated during the system initialization.

In view of the above discussion, applicant respectfully submits that automatically stripping is taught in the specification. It is clear that the inventor, at the time the application was filed, had possession of the claimed invention. The withdrawal of the rejection under 35 U.S.C. 112, first paragraph, is respectfully requested.

Claims 7, 13, 17 and 31 were rejected under 35 U.S.C. 103(a) as being unpatentable over Chen (U.S. Patent No. 4,573,199) in view of Robertson (U.S. Patent No. 6,486,895); claims 8-9, 14, 18, 32-33 were rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Robertson and further in view of IBM (IBM Technical Disclosure Bulletin, May 1993, Vol. 36, Issue 5, pp. 491-492); claims 10 and 34 were rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Robertson and further in view of Lee (U.S. Patent No. 6,337,687); claims 20-24, 35-49 were rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Chen. Applicant respectfully disagrees.

35 U.S.C. 103(a) provides that "Patentability shall not be negatived by the manner in which the invention was made."

Further, MPEP (2141) provides that "When applying 35 U.S.C. 103, the following tenets of patent law must be adhered to: (A) The claimed invention must be considered as a whole; (B) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination; (C) The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and (D) Reasonable expectation of success is the standard with which obviousness is determined."

Further, MPEP (2142, 2143) provides that "To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure."

Claims 7, 13, 17 and 31 were rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Robertson. The Office Action asserted that "It would have been obvious to one of ordinary skill in the art at the time the invention was to delete the top and bottom lines because this would not distort the font as much." However, there is no prior art reference that supports such an assertion. This rejection has clearly failed to establish a *prima facie* case of obviousness because no reference supports this assertion. "Utilizing all but the very first or top line and the very last or bottom line of each character of the sixteen line font when the fourteen line font is requested" is a teaching of the present invention (see, e.g., page 7, lines 19-21, of the specification). Hindsight vision afforded by the claimed invention is not permissible for a rejection under 35 U.S.C. 103(a). The Office Action merely asserted that a teaching of the present invention is obvious without showing any evidence to support such an assertion. Since the disclosure of Robertson was relied upon in the Office Action to show that enlargement of fonts according to Chen can be performed to automatically fit a page, the disclosure of Robertson does not support the assertion of the obviousness in using a particular method of automatically stripping off particular lines (a top line and a bottom line) of a font to emulate another font. Since the technique of deleting the top and bottom lines of a font to emulate another font is not found in the prior art, the rejection under 35 U.S.C. 103(a) for claims 7, 13, 17 and 31 is improper.

Further, Chen teaches to emulate a large font using a small font (e.g., emulating a 28x28 font using a 24x24 font). However, in claims 7, 13, 17 and 31, a larger font (e.g., $n\times(m+2)$) is used to emulate a smaller font (e.g., $n\times m$). Font enlargement is different from reducing font. The description of Col. 7, lines 44-67 and Col. 8 lines 1-5 relates to the generation of "side information" for the enlargement of a 24×24 font to a 28×28 font. The "side information" is individually generated for each character using an algorithm based on density functions (e.g., Figure 6 of Chen) or using an interactive tool (e.g., Figure 7 of Chen).

For example, Figure 6 shows a method to derive "side information" from the 24×24 font and the 28×28 font. Both fonts are used as input data in this process. Since "side information" is individually derived for each character, each character is enlarged differently according to the corresponding "side information". In Chen, there is no teaching of applying a uniform operation to all characters to scale a font.

Furthermore, Robertson (Col. 9, lines 60-67) relates to the scaling to fit a target size. However, the method of Chen uses encoded information to enlarge a 24x24 font to a 28x28 font. The enlargement is limited to a predetermined ratio (24 to 28), according to the encoded information supplied. Thus, Robertson and Chen cannot be properly combined in the way suggested in the Office Action.

Furthermore, Chen was issued and published in 1986, which was almost fifteen years before the filing date of the present invention (January 3, 2001). While saving memory space was and still is a desirable goal, the lack of prior art references showing the method that automatically strips off a top line and a bottom line of a font to emulate another font during this long, long period, from 1986 to 2001, is a clear evidence of non-obviousness.

Thus, when the prior art references are considered as a whole without the impermissible hindsight vision and the claimed subject matter is considered as a whole, claims 7, 13, 17 and 31 are patentable over the cited references. As dependent claims of claims 7, 13, 17 and 31, claims 8-10, 14, 18 and 32-34 are patentable over the cited references at least for the above reasons.

Claims 20-24, 35-49 were rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Chen. As per claims 20, 35, 40 and 50, the Office Action asserted that "It would have been obvious to one of ordinary skill at the time the invention was made to emulating fonts as in Chen with the system of Lee because this would save memory." However, there is no indication that the method of Chen can be implemented in the BIOS.

Further, emulating fonts as in Chen with the system of Lee may not suggest a method of using the instructions stored in BIOS to emulate the fonts. It is a teaching of the present invention that "By storing the emulation routine 150 in the BIOS instead of the two fourteen line fonts (8x14 font 140 and 9x14 font 145), space is saved in the BIOS" (see, e.g., page 6, lines 21-22, of the specification). In the prior art there is no such teaching or suggestion of saving space in BIOS through replacing fonts with instructions for font emulation. Thus, the rejection under 35 U.S.C. 103(a) for claims 20, 35, 40 and 50 is improper.

Further, the reasonable expectation of success for the combination suggested by the Office Action is not found in the prior art. Chen is related to complex character generation, such as Kanji characters, Chinese characters or Hebrew characters (see, e.g., Col. 1, lines 6-16, of Chen). The methods of Chen involve complex operations, fonts and additional encoded information that require a large storage space. For example, a 24x24 font requires 720,000 bytes; a 28x28 font requires 980,000 bytes (see, e.g., Col. 1, lines 36-40, of Chen). Thus, there is no evidence that the methods of Chen are suitable for implementation in BIOS memory.

Furthermore, due to the complexity in the method of Chen, which requires complex operations and encoded information to show the inserted lines and deleted lines, the system of Chen may take more memory than fourteen line fonts (e.g., 9x14 or 8x14 as recited in claims 8-9, 14, 18 and 32-33). Thus, there is no reasonable expectation of success in the prior art for the combination suggested by the Office Action.

Chen was issued and published in 1986, which was more than ten years before Lee was filed (1999) and before the present application was filed (2001). The lack of suggestions and teachings in Lee and the lack of prior art references that use an emulation routine in BIOS to replace fonts are clear evidences of non-obviousness.

When viewed together, Chen and Lee do not fairly suggest using instructions stored in the BIOS memory to emulate a font based on another font. Thus, the withdrawal of the rejection under 35 U.S.C. 103(a) for claims 20, 35, 40 and 45 is respectfully requested. As dependent claims of claims 20, 35, 40 and 45, claims 21-24, 36-39, 41-44 and 46-49 are patentable over the cite references at least for the above reasons.

Claims 50-53 recite the limitation of "the top line and the bottom line are stripped unconditionally." However, the operations to delete lines in Chen are based on the encoded information. In the method of Chen, address information for all horizontal and vertical lines to be either inserted or deleted are stored in addition to the 24x24 font. Such a complicated approach is significantly different from simply stripping off the top and bottom lines automatically and unconditionally.

35 U.S.C. 103(a) provides that "Patentability shall not be negatived by the manner in which the invention was made." In the absence of prior art references supporting the assertions made in the Office Action, the patentability of the pending claims shall not be negativated by the simplicity of the methods of embodiments of the present invention.

In summary, the disclosures of Chen, Lee, Robertson and IBM does not fairly suggest the technique of emulating a small font using a large font, in which a top line and a bottom line are stripped from the large font to simulate the small font. Therefore, Applicant respectfully submits that the pending claims are allowable over the prior art references.

Please charge any shortages or credit any overages to Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN

Date: 5/26, 2004

Lehua Wang
Reg. No. 48,023

12400 Wilshire Boulevard
Seventh Floor
Los Angeles, California 90025-1026
(408) 720-8300